

Remarks

Claims 9 and 19 are pending in this application. Claims 9 and 19 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Applicants believe that the specification is enabling for the claimed subject matter, and respectfully request the Examiner to reconsider.

The invention relates to packet-based xDSL architectures for broadband communication systems. xDSL technologies offer great potential for bandwidth-intensive applications, such as Internet access, remote LAN access, video conferencing, and video-on-demand.

Claim 9 recites a broadband communication system of the type utilizing xDSL packet-based technologies. The system comprises an upstream xDSL modem, a twisted pair connected to the upstream xDSL modem, and a plurality of taps defined along the twisted pair. A plurality of downstream xDSL modems are located at a plurality of user sites. Each downstream xDSL modem is in communication with a corresponding tap of the plurality of taps. The upstream xDSL modem and the plurality of downstream xDSL modems provide packet-based point-to-multipoint communication between the upstream xDSL modem and the plurality of downstream xDSL modems at the plurality of user sites.

The taps are located along the twisted pair between the upstream xDSL modem and the plurality of user sites. The plurality of downstream xDSL modems are operative to transmit to the upstream xDSL modem in a contention-based protocol. The upstream xDSL modem is operative to transmit to the plurality of downstream xDSL modems in a broadcast-based protocol.

Claim 19 recites a broadband communication method for xDSL packet-based applications.

Claims 9 and 19 each recite specific combinations including xDSL packet-based technologies and point-to-multipoint communication involving a plurality of user sites, upstream transmissions in a contention-based protocol, and downstream transmissions in a broadcast-based protocol to reach the plurality of downstream xDSL modems at the plurality of user sites.

In making the rejection, the Examiner states that “what is lacking is the description that clearly and concisely discloses the interoperability function between the protocols.” The Examiner goes on to state that “one skilled in the art recognizes a number of available contention and broadcast based protocols and without knowing the interoperability details results in undue experimentation.”

Applicants disagree. Applicants believe that the disclosure is clearly enabling. In the specification, at page 6, line 30 - page 7, line 11, the specification clearly states that the downstream xDSL modems may transmit to the upstream xDSL modem in a contention-based protocol. The specification further states that CSMA/CD is one example of a known contention-based protocol. The specification further states that the upstream xDSL modem may transmit to the downstream xDSL modems in a broadcast-based protocol. This description is very clear, very concise, and provides all that is needed for one of ordinary skill in the art to make or use this aspect of the invention. For example, CSMA/CD may be used for the upstream transmissions, while the downstream transmissions utilize, for example, a broadcast address in a known manner such that all downstream modems receive the transmissions. After reviewing the specification, the way to make or use the invention becomes quite clear.

The Examiner expresses that additional disclosure of “interoperability function between the protocols” is required. Applicants do not believe that any further disclosure is required, and do not believe that any such interoperability details require any discussion to enable one of ordinary skill to make and use the invention. Applicants note that the Examiner has not set forth any specific point of confusion that one of ordinary skill in the art would be faced with in making or using the invention. The Examiner has only made a vague reference

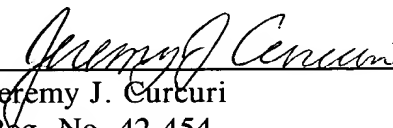
to "interoperability function" and has not given any specific example as to where one of ordinary skill in the art would be confused. Thus, Applicants maintain that there is no confusion, and the disclosure is fully enabling, and in conformance with the requirements of 35 U.S.C. 112. Put another way, the specification clearly states that, for example, downstream broadcast and upstream CSMA/CD may be used to implement this aspect of the invention. Applicants believe that this example enables the invention, and the Examiner has not pointed out any specific point of confusion.

Applicants respectfully request that the Examiner reconsider this application, and withdraw the rejection under 35 U.S.C. 112, first paragraph.

Respectfully submitted,

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